

Listing of the Claims:

1. (currently amended) A method of transmitting a signal, comprising:
generating a sequence of pseudorandom noise chips at a base power level;
~~increasing the power level of a first group of the sequence of chips above the base~~
~~power level; and~~

~~increasing the power level of a second group of the sequence of chips above the~~
~~base power level;~~

amplifying a sequence of a group of the chips to a higher power level than chips
not in the group so that successive ones of said groups of chips are separated by a time
interval that is related to a cryptographic sequence, and wherein the durations of the time
intervals between successive groups represents ~~varying the time interval between the first~~
~~and second groups of the sequence of chips according to a predetermined relationship~~
~~representing~~ synchronization information for said signal.

2-12. (canceled)

13. (currently amended) A transmitter suitable for transmitting a staggered pulse signal, comprising:

a code generator configured to generate a plurality of pulses according to a code;
a ~~cryptographical~~ cryptographic unit configured to generate a ~~cryptographical~~
cryptographic sequence based on a ~~cryptographical~~ cryptographic key; and

an amplifier connected to the code generator and the ~~cryptographical~~
cryptographic unit ~~and configured to amplify first one of the pulses to a first level and to~~
~~amplify a second one of the pulses to a second level in response to the cryptographical~~
~~sequence, wherein the amplifier responds to the cryptographical sequence to amplifies a~~
group of a sequence of pulses to a higher power level than pulses not in said group, so
that successive ones of said groups of pulses are separated by ~~generate~~ a time interval that
is related to said cryptographic sequence, and wherein the durations of the time intervals
between said successive groups represents ~~between the first and second pulses such that~~

~~time intervals between groups of pulses at the first level represent~~ synchronization information for the signal.

14. (original) The transmitter of claim 13, wherein the code is a pseudorandom noise (PN) code.

15. (canceled)

16. (currently amended) A transmitter suitable for transmitting a staggered pulse signal, comprising:

code generator means for generating a plurality of pulses according to a code;

means for generating a ~~cryptographical~~ cryptographic sequence based on a ~~cryptographical~~ cryptographic key; and

~~amplifier~~ means for amplifying a first one of the pulses of the code to a first level and amplifying a second one of pulses of the code to a second level based on the ~~cryptographical~~ cryptographic sequence, wherein the means for amplifying responds to the ~~cryptographical~~ cryptographic sequence to amplify a group of a sequence of the pulses to a higher voltage level than pulses not in said groups, so that successive ones of said groups of pulses are separated by a time interval that is related to said cryptographic sequence, and wherein the durations of the time intervals between said successive groups represents ~~generate a time interval between the first and second pulses such that time intervals between groups of pulses at the first level represent~~ synchronization information for said signal.

17. (original) The transmitter of claim 16, wherein the code is a pseudorandom noise (PN) code.

18. (canceled)

19. (currently amended) A receiver for receiving a staggered pulse signal having high-power pulses of a code separated by time intervals according to a cryptographic algorithm, the receiver comprising:

a cryptographic unit configured to generate a cryptographic sequence corresponding to the cryptographic algorithm; and

a code detection unit connected to the cryptographic unit and configured to detect a code phase of the received staggered pulse signal that comprises a group of a sequence of pulses at a higher power than pulses not in said group such that successive ones of said groups of pulses are separated by a time interval that is related to said cryptographic sequence, wherein the code detection unit decodes based on the cryptographic sequence generated by the cryptographic unit to decode the time intervals between said successive groups of higher power the high-powered pulses and thereby acquire synchronization to the staggered pulse signal.

20. (original) The receiver of claim 19, wherein the code detection unit comprises:

a correlator configured to correlate the received signal with a local code and to output a correlation signal; and

a decoder unit configured to decode the correlated signal based on the cryptographic sequence generated by the cryptographic unit.

21. (previously amended) The receiver of claim 20, wherein the decoder unit comprises a matched filter configured to detect a sequence of time intervals between the high power pulses of the received signal corresponding to the cryptographic sequence to acquire synchronization to the staggered pulse signal.

22. (original) The receiver of claim 21, wherein the cryptographic unit comprises a cryptographic processing unit and a cryptographic storage unit having stored therein cryptographic keys, wherein the cryptographic processing unit generates the cryptographic sequence based on a key stored in the cryptographic storage unit.

23. (previously amended) The receiver of claim 19, wherein the decoder unit uses a pseudorandom noise (PN) code to decode the correlated signal.

AMENDMENT AFTER FINAL ACTION

Attorney Docket No. 0918.0111C

U.S. Serial No. : 09/994,945

24. (currently amended) A receiver for receiving a staggered pulse signal having high-power pulses of a code separated by intervals according to a cryptographic algorithm, the receiver comprising:

means for generating a cryptographic sequence corresponding to the cryptographic algorithm; and

code detection means for detecting a code phase of the received staggered pulse signal that comprises a group of a sequence of pulses at a higher power than pulses not in said group such that successive ones of said groups of pulses are separated by a time interval that is related to said cryptographic sequence, wherein the code detection means decodes based on the generated cryptographic sequence to decode the time intervals between said successive groups of higher power the high-powered pulses and thereby acquire synchronization to the staggered pulse signal.

25. (original) The receiver of claim 24, wherein said code detection means comprises:

means for correlating the received signal with a local code and outputting a correlation signal; and

decoder means for decoding the correlated signal based on the generated cryptographic sequence.

26. (previously amended) The receiver of claim 25, wherein said decoder means comprises filter means for detecting a sequence of time intervals between the high power pulses of the received signal corresponding to the cryptographic sequence.

27. (previously amended) The receiver of claim 24, wherein the code detection means uses a pseudorandom noise (PN) code to decode the correlated signal.

28. (currently amended) A method of transmitting a signal, comprising:
generating a sequence of pseudorandom noise chips at a base power level;

AMENDMENT AFTER FINAL ACTION
Attorney Docket No. 0918.0111C
U.S. Serial No. : 09/994,945

increasing above the base power level ~~the power level of a sequence of a group of the chips select groups of the sequence of chips~~; and

separating said ~~select~~ groups from each other by variable duration time intervals that is related to a cryptographic sequence and which represents ~~represent~~ synchronization information for said signal.

29. (currently amended) A method for receiving a signal, comprising:
receiving a sequence of pseudorandom noise chips comprising a first group of chips at an increased power level relative to a base power level interspersed with a second group of chips at the base power level, wherein time intervals between successive ones of said first groups of chips is related to a cryptographic sequence and represents synchronization information for the signal;

detecting only the first group chips;
determining durations of time intervals between successive ones of the first groups of chips; and
acquiring synchronization to the signal based on said durations.